# Subject Index


**Active control**

Active Control of Floating Structures, S. Sirlin, C. Paliou, R. W. Longman, M. Shinozuka and E. Samaras, EM Sept. 86 p947-965.

Pseudo-Dynamic Testing of Structures, Haluk M. Aktan, EM Feb. 86 p183-197.

**Aerodynamics**

Aerodynamic Behavior of Cylindrical Shell, Kazue Uchiyama, Yasushi Uematsu and Shigeki Katsura, EM Dec. 86 p1346-1362.

Synthesis of Fluctuating along Wind Loads on Buildings, Ahsan Kareem, EM Jan. 86 p121-125.

**Aging**

Response of Aging Linear Systems to Ergodic Random Input, Zdenek P. Bazant, EM Mar. 86 p322-342.

**Algorithms**

Fuzzy Set Approach to Linguistic Seismic Load and Damage Assessments, Costas Souflis and Dimitri A. Grivas, EM June 86 p605-618.

**Analytical techniques**

Analytical Strip Solution to Rectangular Plates, Issam E. Harik and Ghassan L. Salamoun, EM Jan. 86 p105-118.

Hydrodynamic Pressures on Dams with Non-vertical Upstream Face, Javier Aviles and Francisco J. Sanches-Sesma, EM Oct. 86 p1054-1061.

**Anisotropy**

Loading of Anisotropic Quarter Plane, M. C. Constantinou and George Gazetas, EM Oct. 86 p1021-1040.

Torsion of Nonhomogeneous and Transversely Isotropic Half-Space, M. E. Erguvea, EM Oct. 86 p1101-1106.

**Anistropic soils**

Bounding Surface Plasticity III: Application to Anisotropic Cohesive Soils, A. Anandarajah and Yannis F. Dafalias, EM Dec. 86 p1292-1318.

**Arctic engineering**

Steady-State Ice-Structure Interaction Analysis, A. N. Williams and C. Vipulanandan, EM Oct. 86 p989-1006.

**Asphalts**

Deformation of Asphalt Concrete Linings on Slopes, John F. Hills and David McAughtry, EM Oct. 86 p1076-1089.

**Attenuation**

Attenuation of Shocks by Viscoelastic Support, Marek Elzanowski and Marcelo Epstein, EM June 86 p587-592.

**Auto-regressive models**

Z-Transform Modeling of P-M Wave Spectrum, Pol D. Spanos and Marc P. Mignolet, EM Aug. 86 p745-759.

**Auto-regressive moving-average model**

Z-Transform Modeling of P-M Wave Spectrum, Pol D. Spanos and Marc P. Mignolet, EM Aug. 86 p745-759.

**Beam columns**

3D Beam-Column Element with Generalized Plastic Hinges, Graham H. Powell and Paul F.-S. Chen, EM July 86 p627-641.

**Beams**

Flexural Waves in Beam of Elastic Nonlocal Material, Jerzy L. Nowinski, EM June 86 p593-604.

Free Vibration of Combined Dynamical Systems, James W. Nicholson and Lawrence A. Bergman, EM Jan. 86 p1-13.

Optimum Hole Shapes in Beams under Pure Bending, N. K. Naik, R. Ramesh Kumar and K. Rajaiah, EM Apr. 86 p407-411.

Plastic Analysis of Floating Beams, Shankar U. Bhat and Paul C. Xirouchakis, EM Feb. 86 p198-214.

Stiffening of Linked Shear Walls, Fouad R. Moudarres and Alex Coull, EM Mar. 86 p223-237.

**Beams, cantilever**

Optimal Elastic Design with Constrained Taper: Prescribed Deflections, George I. N. Rozvany, Ong Tiong Guan, Yep Kong Min and Roman Sandler, EM Aug. 86 p845-851.

**Bearing capacity**

Plastic Analysis of Floating Beams, Shankar U. Bhat and Paul C. Xirouchakis, EM Feb. 86 p198-214.

Rigid-Plastic Analysis of Floating Plates, Shankaranarayana U. Bhat and Paul C. Xirouchakis, EM June 85 p815-831.

**Bending**

Analytical Strip Solution to Rectangular Plates, Issam E. Harik and Ghassan L. Salamoun, EM Jan. 86 p105-118.

Bending of Circular Plate by Edge Moments, B. J. Stephens, O. L. Vance and Carol Rubin, EM July 86 p721-727.

Effects of Shear and Normal Strain on Plate Bending, G. Z. Voyiadjis, M. H. Baluch and W. K. Chi, EM Sept. 85 p1130-1143.

On Internal Friction Due to Wire Twist in a Bent Cable, O. G. Vinogradov and L. S. Atatekin, EM Sept. 86 p859-873.

Singularity Finite Elements for Plate Bending, Terry M. Hrudey and Metro M. Hrabok, EM July 86 p666-681.

Spline Finite Strip Analysis of General Plates, W. Y. Li, Y. K. Cheung and L. G. Tham, EM Jan. 86 p43-54.

Thick Rectangular Plates on an Elastic Foundation,

George Z. Voyiadjis and Peter I. Kattan, EM Nov. 86 p1218-1240.

**Biaxial loads**

Biaxial Properties of Structural Steel under Non-proportional Loading, K. C. Chang and G. C. Lee, EM Aug. 86 p792-805.

Constitutive Model for Biaxial Cyclic Loading of Concrete, A. Fafitis and S. P. Shah, EM Aug. 86 p760-775.

Constitutive Relations of Structural Steel Subjected to Nonproportionally Applied Stresses, K. C. Chang and G. C. Lee, EM Aug. 86 p806-820.

**Bilinear analysis**

Railroad Track Analyses and Determination of Parameters, Arnold D. Kerr and Harry W. Shenton, III, EM Nov. 86 p1117-1134.

**Blast loads**

Response of SDF Systems to Extreme Over-pressure, Arthur Feldman and Roy J. Heyman, EM Apr. 86 p425-429.

Step-Load Response Analysis by Generalized Functions, Erwin Kessler and Hans Brauchli, EM Mar. 86 p311-321.

**Blocks**

Harmonic Rocking of Rigid Block on Flexible Foundation, Aik-Siong Koh, Pol D. Spanos and Jose M. Roesset, EM Nov. 86 p1165-1180.

**Boundary conditions**

Thick Rectangular Plates on an Elastic Foundation, George Z. Voyiadjis and Peter I. Kattan, EM Nov. 86 p1218-1240.

**Boundary element method**

Free Vibration Analysis by BEM Using Particular Integrals, Shahid Ahmad and Prasanta K. Banerjee, EM July 86 p682-695.

**Boundary value problems**

Stress Analysis of a Blunted Notch in a Clamped Edge, Norio Hasebe, Takahiro Sugimoto and Takuji Nakamura, EM Feb. 86 p142-153.

Stress Concentration in Clamped Edge of Thin Plate, Norio Hasebe, Takahiro Sugimoto and Takuji Nakamura, EM July 86 p642-653.

**Bounding surface**

Bounding Surface Plasticity: I: Mathematical Foundation and Hypoplasticity, Yannis F. Dafalias, EM Sept. 86 p966-987.

Bounding Surface Plasticity II: Application to Isotropic Cohesive Soils, Yannis F. Dafalias and Leonard R. Herrmann, EM Dec. 86 p1263-1291.

Bounding Surface Plasticity III: Application to Anisotropic Cohesive Soils, A. Anandarajah and Yannis F. Dafalias, EM Dec. 86 p1292-1318.

Bounding Surface Plasticity Model for Sands, J. P. Bardet, EM Nov. 86 p1198-1217.

**Buckling**

Improved Technique for Estimating Buckling Loads, Charles W. Bert, EM Dec. 84 p1655-1665.

On Plate Buckling Coefficients, Herbert H. Spencer and Herli Syrjanhata, EM Mar. 86 p249-259.

Static Stability of Curved Thin-Walled Beams, Teong-Bin Yang and Shyh-Rong Kuo, EM Aug. 86 p821-841.

**Buildings**

Seismic Response of Buildings with Flexible Floors, Sudhir K. Jain, EM Jan. 84 p125-129.

**Buoyancy**

Buoyancy Driven Exchange Flow in a Horizontal Pipe, David L. Wilkinson, EM May 86 p485-497.

**Buried pipes**

Three-Dimensional Motion of a Buried Pipeline II: Numerical Results, K. C. Wong, A. H. Shah and S. K. Datta, EM Dec. 86 p1338-1345.

Three-Dimensional Motion of Buried Pipeline I: Analysis, K. C. Wong, S. K. Datta and A. H. Shah, EM Dec. 86 p1319-1337.

**Cables**

On Internal Friction Due to Wire Twist in a Bent Cable, O. G. Vinogradov and L. S. Atatekin, EM Sept. 86 p859-873.

**Cantilevers**

On Internal Friction Due to Wire Twist in a Bent Cable, O. G. Vinogradov and L. S. Atatekin, EM Sept. 86 p859-873.

**Clays**

Modelling of Undrained Creep of Normally Consolidated Clay, M. O. Faruque, EM Oct. 86 p1007-1020.

**Cohesive soils**

Bounding Surface Plasticity II: Application to Isotropic Cohesive Soils, Yannis F. Dafalias and Leonard R. Herrmann, EM Dec. 86 p1263-1291.

Bounding Surface Plasticity III: Application to Anisotropic Cohesive Soils, A. Anandarajah and Yannis F. Dafalias, EM Dec. 86 p1292-1318.

**Columns**

Improved Technique for Estimating Buckling Loads, Charles W. Bert, EM Dec. 84 p1655-1665.

**Comparative studies**

Bending of Circular Plate by Edge Moments, B. J. Stephens, O. L. Vance and Carol Rubin, EM July 86 p721-727.

**Compound strip method**

Compound Strip Method for Continuous Sector Plates, Jay A. Puckett and Greg J. Lang, EM May 86 p498-514.

Compound Strip Method for Free Vibration Analysis of Continuous Plates, J.A. Puckett and G.J. Lang, EM Dec. 86 p1375-1389.

**Computer programs**

Coordination of Interconnected Arterial Traffic Signals (*Computing in Civil Engineering*, W. Tracy Lenocker, ed., 1986), Edmond Chin-Ping Chang p534-540.

**Concrete**

2-D Representation of 3-D Limit Surfaces, Jan G. M. van Mier and Rene de Borst, EM Nov. 86 p1255-1258.

Constitutive Model for Biaxial Cyclic Loading of Concrete, A. Fafitis and S. P. Shah, EM Aug. 86 p760-775.

Effect of Fatigue on the Fracture Toughness of Concrete, Philip C. Perdikaris, Anthony M. Calomino and Alexander Chudnovsky, EM Aug. 86 p776-791.

Fracture Processes in Concrete and Fiber Reinforced Cementitious Composites, Victor C. Li and Erwin Liang, EM June 86 p566-586.

Some Restrictions on Lehigh-Purdue Concrete Plasticity Model, A. S. Elnashai and R. W. Nicholson, EM Feb. 86 p217-221.

**Concrete, reinforced**

A Rough Crack Model for Analysis of Concrete, H. Ronald Riggs and Graham H. Powell, EM May 86 p448-464.

**Constitutive equations**

Bounding Surface Plasticity Model for Sands, J. P. Bardet, EM Nov. 86 p1198-1217.

A Constitutive Equation for Ottawa Sand, R. Block and F. E. Udwadia, EM Mar. 86 p238-248.

**Constitutive models**

Bounding Surface Plasticity: I: Mathematical Foundation and Hypoplasticity, Yannis F. Dafalias, EM Sept. 86 p966-987.

Bounding Surface Plasticity II: Application to Isotropic Cohesive Soils, Yannis F. Dafalias and Leonard R. Herrmann, EM Dec. 86 p1263-1291.

Bounding Surface Plasticity III: Application to Anisotropic Cohesive Soils, A. Anandarajah and Yannis F. Dafalias, EM Dec. 86 p1292-1318.

Constitutive Model for Biaxial Cyclic Loading of Concrete, A. Fafitis and S. P. Shah, EM Aug. 86 p760-775.

Constitutive Model for Nonassociative Behavior, G. Frantziskonis, C. S. Desai and S. Somasundaram, EM Sept. 86 p932-946.

Modelling of Undrained Creep of Normally Consolidated Clay, M. O. Faruque, EM Oct. 86 p1007-1020.

New Cap Model for Failure and Yielding of Pressure-Sensitive Materials, M.O. Faruque and C. J. Chang, EM Oct. 86 p1041-1053.

Thermodynamic Consequences of Strain Softening in Tension, Niels S. Ottosen, EM Nov. 86 p1152-1164.

**Constitutive relations**

Constitutive Relations of Structural Steel Subjected to Nonproportionally Applied Stresses, K. C. Chang and G. C. Lee, EM Aug. 86 p806-820.

**Cracking**

Effect of Fatigue on the Fracture Toughness of Concrete, Philip C. Perdikaris, Anthony M. Calomino and Alexander Chudnovsky, EM Aug. 86 p776-791.

A Rough Crack Model for Analysis of Concrete, H. Ronald Riggs and Graham H. Powell, EM May 86 p448-464.

**Cracks**

Analysis of Kinked Crack Under Uniform Heat Flow, Norio Hasebe, Kenji Tamai and Takuji Nakamura, EM Jan. 86 p31-42.

**Creep**

Modelling of Undrained Creep of Normally Consolidated Clay, M. O. Faruque, EM Oct. 86 p1007-1020.

**Curved beams**

Static Stability of Curved Thin-Walled Beams, Teong-Bin Yang and Shyh-Rong Kuo, EM Aug. 86 p821-841.

**Cyclic loads**

Constitutive Model for Biaxial Cyclic Loading of Concrete, A. Fafitis and S. P. Shah, EM Aug. 86 p760-775.

Constitutive Relations of Structural Steel Subjected to Nonproportionally Applied Stresses, K. C. Chang and G. C. Lee, EM Aug. 86 p806-820.

**Cylinders**

Antiplane Transient Response of Embedded Cylinder, Anil C. Wijeyewickrema and Leon M. Keer, EM June 86 p536-549.

Steady-State Ice-Structure Interaction Analysis, A. N. Williams and C. Vipulanandan, EM Oct. 86 p989-1006.

Turbulence Effect on Flow Around Circular Cylinder, Kenny K. S. Kwok, EM Nov. 86 p1181-1197.

**Cylindrical shells**

Aerodynamic Behavior of Cylindrical Shell, Kazue Uchiyama, Yasushi Uematsu and Shigeki Katsura, EM Dec. 86 p1346-1362.

Cylindrically Orthotropic Medium with Lined Hole, Yellappa C. Das and Glenn A. Hazen, EM Sept. 86 p904-915.

**Damage assessment**

Fuzzy Set Approach to Linguistic Seismic Load and Damage Assessments, Costas Souflis and Dimitri A. Grivas, EM June 86 p605-618.

**Damping**

Elastoplastic Analysis Method for Dynamic Agencies, Castrenze Polizzotto, EM Mar. 86 p293-310.

Vibration of Damped Plate-Oscillator Systems, James W. Nicholson and Lawrence A. Bergman, EM Jan. 86 p14-30.

**Dams**

Hydrodynamic Pressures on Dams with Non-vertical Upstream Face, Javier Aviles and Francisco J. Sanches-Sesma, EM Oct. 86 p1054-1061.

**Data processing**

Digital Signal Processing of Geotechnical Data, Satyananda Chakrabarti, Donald E. Shaw, Dale

E. Stephenson and B. V. K. Vijaya Kumar, EM Jan. 86 p70-83.

**Deflection**

A General Theory of Optimal Layouts for Elastic Structures, G. I. N. Rozvany and Ong Tion Guan, EM Aug. 86 p851-857.

Optimal Elastic Design with Constrained Taper: Prescribed Deflections, George I. N. Rozvany, Ong Tiong Guan, Yep Kong Min and Roman Sandler, EM Aug. 86 p845-851.

**Deformation**

Deformation of Asphalt Concrete Linings on Slopes, John F. Hills and David McAughtry, EM Oct. 86 p1076-1089.

Pseudo-Dynamic Testing of Structures, Haluk M. Aktan, EM Feb. 86 p183-197.

**Digital systems**

Digital Signal Processing of Geotechnical Data, Satyananda Chakrabarti, Donald E. Shaw, Dale E. Stephenson and B. V. K. Vijaya Kumar, EM Jan. 86 p70-83.

**Displacement**

Elasto-Plastic Oscillator with Gaussian Excitation, Ove Ditlevsen, EM Apr. 86 p386-406.

Reduced Integrated Nonconforming Plate Element, Chang-Koon Choi, EM Apr. 86 p370-385.

Stress Analysis of a Blunted Notch in a Clamped Edge, Norio Hasebe, Takahiro Sugimoto and Takuji Nakamura, EM Feb. 86 p142-153.

Stress Concentration in Clamped Edge of Thin Plate, Norio Hasebe, Takahiro Sugimoto and Takuji Nakamura, EM July 86 p642-653.

**Dynamic loads**

Elastoplastic Analysis Method for Dynamic Agencies, Castrenze Polizzotto, EM Mar. 86 p293-310.

**Dynamic response**

Aerodynamic Behavior of Cylindrical Shell, Kazue Uchiyama, Yasushi Uematsu and Shigeki Katsura, EM Dec. 86 p1346-1362.

Effect of Sediment on Earthquake-Induced Reservoir Hydrodynamic Response, Alexander H.-D. Cheng, EM July 86 p654-663.

Response of Hemispherical Foundation Embedded in Half-Space, J. Entique Luco and Hung L. Wong, EM Dec. 86 p1363-1374.

Response of Offshore Structures to Random Waves, M. Grigoriu and B. Alibe, EM Aug. 86 p729-744.

Response of SDF Systems to Extreme Overpressure, Arthur Feldman and Roy J. Heyman, EM Apr. 86 p425-429.

Steady-State Ice-Structure Interaction Analysis, A. N. Williams and C. Vipulanandan, EM Oct. 86 p989-1006.

Step-Load Response Analysis by Generalized Functions, Erwin Kessler and Hans Brauchli, EM Mar. 86 p311-321.

Three-Dimensional Motion of a Buried Pipeline II: Numerical Results, K. C. Wong, A. H. Shah and S. K. Datta, EM Dec. 86 p1338-1345.

Three-Dimensional Motion of Buried Pipeline I: Analysis, K. C. Wong, S. K. Datta and A. H. Shah, EM Dec. 86 p1319-1337.

Time Domain Axial Response of Dynamically, Toyoaki Nogami and Kazuo Konagai, EM Nov. 86 p1241-1252.

The Two-Degree-of-Freedom Equipment-Structure System, Alan G. Hernried and Jerome L. Sackman, EM June 86 p621-626.

Vertical Vibration of Ring Foundations with Mass, Anestis S. Veletsos and Yu Tang, EM Oct. 86 p1090-1098.

**Dynamic stability**

Bounds on Earthquake Response of Structures, Goodarz Ahmadi, EM Apr. 86 p351-369.

**Earthquake excitation**

Bounds on Earthquake Response of Structures, Goodarz Ahmadi, EM Apr. 86 p351-369.

Harmonic Rocking of Rigid Block on Flexible Foundation, Aik-Siong Koh, Pol D. Spanos and Jose M. Roesset, EM Nov. 86 p1165-1180.

Random Vibration of Rotating Machines under Earthquake Excitations, B. Samali, K. Kim and J. N. Yang, EM June 86 p550-565.

Response Covariance to Multiple Excitations, Masaru Hoshiya and Shigehiko Shibusawa, EM Apr. 86 p412-421.

**Earthquake loads**

Fuzzy Set Approach to Linguistic Seismic Load and Damage Assessments, Costas Souflis and Dimitri A. Grivas, EM June 86 p605-618.

Hydrodynamic Pressures on Dams with Nonvertical Upstream Face, Javier Aviles and Francisco J. Sanches-Sesma, EM Oct. 86 p1054-1061.

**Earthquakes**

Response of Hemispherical Foundation Embedded in Half-Space, J. Entique Luco and Hung L. Wong, EM Dec. 86 p1363-1374.

Stochastic Variation of Earthquake Ground Motion in Space and Time, Ronald S. Harichandran and Erik H. Vanmarcke, EM Feb. 86 p154-174.

**Elastic analysis**

Singularity Finite Elements for Plate Bending, Terry M. Hrudey and Metro M. Hrabok, EM July 86 p666-681.

**Elastic media**

Attenuation of Shocks by Viscoelastic Support, Marek Elzanowski and Marcelo Epstein, EM June 86 p587-592.

Stress Analysis of Thick-Walled Reinforced Tunnel, Kuo-Yao Liu and Charles W. Bert, EM Sept. 86 p916-931.

**Elasticity**

Loading of Anisotropic Quarter Plane, M. C. Constantinou and George Gazetas, EM Oct. 86 p1021-1040.

Thick Rectangular Plates on an Elastic Foundation,

George Z. Voyiadjis and Peter I. Kattan, EM Nov. 86 p1218-1240.

Torsion of Nonhomogeneous and Transversely Isotropic Half-Space, M. E. Erguven, EM Oct. 86 p1101-1106.

**Elastoplasticity**

Elastoplastic Analysis Method for Dynamic Agencies, Castrenze Polizzotto, EM Mar. 86 p293-310.

Elasto-Plastic Oscillator with Gaussian Excitation, Ove Ditlevsen, EM Apr. 86 p386-406.

Finite-Strain, Elasto-Plastic Solution for Contact Problems, George Z. Voyiadjis, Andrew A. Poe and Panos D. Kiousis, EM Mar. 86 p273-292.

**Equations of motion**

Harmonic Rocking of Rigid Block on Flexible Foundation, Aik-Siong Koh, Pol D. Spanos and Jose M. Roesset, EM Nov. 86 p1165-1180.

**Equipment**

The Two-Degree-of-Freedom Equipment-Structure System, Alan G. Hernried and Jerome L. Sackman, EM June 86 p621-626.

**Ergodic processes**

Response of Aging Linear Systems to Ergodic Random Input, Zdenek P. Bazant, EM Mar. 86 p322-342.

**Failure surface**

2-D Representation of 3-D Limit Surfaces, Jan G. M. van Mier and Rene de Borst, EM Nov. 86 p1255-1258.

New Cap Model for Failure and Yielding of Pressure-Sensitive Materials, M.O. Faruque and C. J. Chang, EM Oct. 86 p1041-1053.

**Fatigue**

Effect of Fatigue on the Fracture Toughness of Concrete, Philip C. Perdikaris, Anthony M. Calomino and Alexander Chudnovsky, EM Aug. 86 p776-791.

**Fiber reinforced materials**

Fracture Processes in Concrete and Fiber Reinforced Cementitious Composites, Victor C. Li and Erwin Liang, EM June 86 p566-586.

**Finite differences**

On Plate Buckling Coefficients, Herbert H. Spencer and Herli Syrjanhata, EM Mar. 86 p249-259.

**Finite element analysis**

Composite FEM Analysis for Layered Systems, Leonard R. Herrmann, Kenneth R. Welch and Chang K. Lim, EM Sept. 84 p1284-1302.

**Finite element method**

Finite-Strain, Elasto-Plastic Solution for Contact Problems, George Z. Voyiadjis, Andrew A. Poe and Panos D. Kiousis, EM Mar. 86 p273-292.

A Model for Unidirectional Water Waves, Nikolaos D. Katopodes and Chien-Tai Wu, EM July 86 p697-717.

Reduced Integrated Nonconforming Plate Element, Chang-Koon Choi, EM Apr. 86 p370-385.

A Rough Crack Model for Analysis of Concrete, H. Ronald Riggs and Graham H. Powell, EM May 86 p448-464.

Singularity Finite Elements for Plate Bending, Terry M. Hrudey and Metro M. Hrabok, EM July 86 p666-681.

**Finite elements**

Some Restrictions on Lehigh-Purdue Concrete Plasticity Model, A. S. Elnashai and R. W. Nicholson, EM Feb. 86 p217-221.

**Finite strip method**

Compound Strip Method for Continuous Sector Plates, Jay A. Puckett and Greg J. Lang, EM May 86 p498-514.

Spline Finite Strip Analysis of General Plates, W. Y. Li, Y. K. Cheung and L. G. Tham, EM Jan. 86 p43-54.

**Floating ice**

Rigid-Plastic Analysis of Floating Plates, Shankaranarayana U. Bhat and Paul C. Xirouchakis, EM June 85 p815-831.

**Floating structures**

Active Control of Floating Structures, S. Sirlin, C. Paliou, R. W. Longman, M. Shinozuka and E. Samaras, EM Sept. 86 p947-965.

**Floors**

Seismic Response of Buildings with Flexible Floors, Sudhir K. Jain, EM Jan. 84 p125-129.

Singularity Finite Elements for Plate Bending, Terry M. Hrudey and Metro M. Hrabok, EM July 86 p666-681.

**Flow separation**

Turbulence Effect on Flow Around Circular Cylinder, Kenny K. S. Kwok, EM Nov. 86 p1181-1197.

**Flumes**

Low Reynolds Number Turbulent Flow in Laboratory Flume, Habib O. Anwar, EM Jan. 86 p55-69.

**Footings**

Vibrations of Footings on Zoned Viscoelastic Soils, Ramón Abascal and Jose Dominguez, EM May 86 p433-447.

**Foundations**

Harmonic Rocking of Rigid Block on Flexible Foundation, Aik-Siong Koh, Pol D. Spanos and Jose M. Roesset, EM Nov. 86 p1165-1180.

Response of Hemispherical Foundation Embedded in Half-Space, J. Entique Luco and Hung L. Wong, EM Dec. 86 p1363-1374.

Thick Rectangular Plates on an Elastic Foundation, George Z. Voyiadjis and Peter I. Kattan, EM Nov. 86 p1218-1240.

Vertical Vibration of Ring Foundations with Mass, Anestis S. Veletsos and Yu Tang, EM Oct. 86 p1090-1098.

**Fracture strength**

Effect of Fatigue on the Fracture Toughness of Concrete, Philip C. Perdikaris, Anthony M. Calomino and Alexander Chudnovsky, EM Aug. 86 p776-791.

**Fracturing**

Fracture Processes in Concrete and Fiber Reinforced Cementitious Composites, Victor C. Li and Erwin Liang, EM June 86 p566-586.

**Framed structures**

Elasto-Plastic Oscillator with Gaussian Excitation, Ove Ditlevsen, EM Apr. 86 p386-406.

**Friction**

Convexity of Smooth Yield Surface of Frictional Material, Feng-Bao Lin and Zdenek P. Bazant, EM Nov. 86 p1259-1262.

**Full-scale tests**

Pseudo-Dynamic Testing of Structures, Haluk M. Aktan, EM Feb. 86 p183-197.

**Fuzzy sets**

Fuzzy Set Approach to Linguistic Seismic Load and Damage Assessments, Costas Souflis and Dimitri A. Grivas, EM June 86 p605-618.

Optimal Plastic Design with Imprecise Data, John Munro and Poon-Hwei Chuang, EM Sept. 86 p888-903.

**Gaussian distribution**

Stochastic Stress Models With Horizontal Forces, J. M. Golden, EM May 86 p517-522.

**Gaussian process**

Response of Linear Systems to Quadratic Gaussian Excitations, Mircea Grigoriu, EM June 86 p523-535.

**Granular materials**

Constitutive Model for Nonassociative Behavior, G. Frantziskonis, C. S. Desai and S. Somasundaram, EM Sept. 86 p932-946.

Stochastic Stress Models With Horizontal Forces, J. M. Golden, EM May 86 p517-522.

**Grillages**

A General Theory of Optimal Layouts for Elastic Structures, G. I. N. Rozvany and Ong Tion Guan, EM Aug. 86 p851-857.

**Ground motion**

Stochastic Variation of Earthquake Ground Motion in Space and Time, Ronald S. Harichandran and Erik H. Vanmarcke, EM Feb. 86 p154-174.

**Half space**

Antiplane Transient Response of Embedded Cylinder, Anil C. Wijeyewickrema and Leon M. Keer, EM June 86 p536-549.

Response of Hemispherical Foundation Embedded in Half-Space, J. Entique Luco and Hung L. Wong, EM Dec. 86 p1363-1374.

Stochastic Stress Models With Horizontal Forces, J. M. Golden, EM May 86 p517-522.

Torsion of Nonhomogeneous and Transversely Isotropic Half-Space, M. E. Erguven, EM Oct. 86 p1101-1106.

**Hazards**

Tsunami Hazard, I-Chen Lin and C. C. Tung, EM Sept. 86 p874-887.

**Heat flow**

Analysis of Kinked Crack Under Uniform Heat Flow, Norio Hasebe, Kenji Tamai and Takuji Nakamura, EM Jan. 86 p31-42.

**Heaving**

Active Control of Floating Structures, S. Sirlin, C. Paliou, R. W. Longman, M. Shinozuka and E. Samaras, EM Sept. 86 p947-965.

**Holes**

Optimum Hole Shapes in Beams under Pure Bending, N. K. Naik, R. Ramesh Kumar and K. Rajaiah, EM Apr. 86 p407-411.

**Hydrodynamic pressure**

Hydrodynamic Pressures on Dams with Non-vertical Upstream Face, Javier Aviles and Francisco J. Sanches-Sesma, EM Oct. 86 p1054-1061.

**Hydrodynamics**

Effect of Sediment on Earthquake-Induced Reservoir Hydrodynamic Response, Alexander H.-D. Cheng, EM July 86 p654-663.

Tsunami Hazard, I-Chen Lin and C. C. Tung, EM Sept. 86 p874-887.

**Hypoplasticity**

Bounding Surface Plasticity: I: Mathematical Foundation and Hypoplasticity, Yannis F. Dafalias, EM Sept. 86 p966-987.

**Ice sheets**

Rigid-Plastic Analysis of Floating Plates, Shankaranarayana U. Bhat and Paul C. Xirouchakis, EM June 85 p815-831.

Steady-State Ice-Structure Interaction Analysis, A. N. Williams and C. Vipulanandan, EM Oct. 86 p989-1006.

**Impedance**

Response of Hemispherical Foundation Embedded in Half-Space, J. Entique Luco and Hung L. Wong, EM Dec. 86 p1363-1374.

**Impulsive loads**

Response of SDF Systems to Extreme Overpressure, Arthur Feldman and Roy J. Heyman, EM Apr. 86 p425-429.

**Interactions**

A Model for Unidirectional Water Waves, Nikolaos D. Katopodes and Chien-Tai Wu, EM July 86 p697-717.

**Interfacial tension**

Antiplane Transient Response of Embedded Cylinder, Anil C. Wijeyewickrema and Leon M. Keer, EM June 86 p536-549.

**Internal friction**

On Internal Friction Due to Wire Twist in a Bent Cable, O. G. Vinogradov and L. S. Atatekin, EM Sept. 86 p859-873.

**Isotropy**

Bounding Surface Plasticity II: Application to Isotropic Cohesive Soils, Yannis F. Dafalias and Leonard R. Herrmann, EM Dec. 86 p1263-1291.

**Lagrangian functions**

Lagrangean Continuum Theory for Saturated Porous Media, P. K. Kiousis and George Z. Voyiadjis, EM Oct. 85 p1277-1288.

**Lateral loads**

Rigid-Plastic Analysis of Floating Plates, Shankaranarayana U. Bhat and Paul C. Xirouchakis, EM June 85 p815-831.

Stiffening of Linked Shear Walls, Fouad R. Moudarres and Alex Coull, EM Mar. 86 p223-237.

**Layered systems**

Composite FEM Analysis for Layered Systems, Leonard R. Herrmann, Kenneth R. Welch and Chang K. Lim, EM Sept. 84 p1284-1302.

**Layout**

A General Theory of Optimal Layouts for Elastic Structures, G. I. N. Rozvany and Ong Tion Guan, EM Aug. 86 p851-857.

**Linear programming**

Optimal Plastic Design with Imprecise Data, John Munro and Poon-Hwei Chuang, EM Sept. 86 p888-903.

**Linear systems**

Cumulants of Stochastic Response for Linear Systems, Loren D. Lutes, EM Oct. 86 p1062-1075.

Non-Normal Stochastic Response of Linear Systems, Loren D. Lutes and Sau-Lon James Hu, EM Feb. 86 p127-141.

Response Covariance to Multiple Excitations, Masaru Hoshiya and Shigehiko Shibusawa, EM Apr. 86 p412-421.

Response of Aging Linear Systems to Ergodic Random Input, Zdenek P. Bazant, EM Mar. 86 p322-342.

Response of Linear Systems to Quadratic Gaussian Excitations, Mircea Grigoriu, EM June 86 p523-535.

**Linearity**

Attenuation of Shocks by Viscoelastic Support, Marek Elzanowski and Marcelo Epstein, EM June 86 p587-592.

**Linings**

Deformation of Asphalt Concrete Linings on Slopes, John F. Hills and David McAughtry, EM Oct. 86 p1076-1089.

**Load combinations**

Extremes of Gaussian Processes with Bimodal Spectra, Gabriel R. Toro and C. Allin Cornell, EM May 86 p465-484.

**Loads**

Extremes of Gaussian Processes with Bimodal Spectra, Gabriel R. Toro and C. Allin Cornell, EM May 86 p465-484.

**Materials, properties**

Biaxial Properties of Structural Steel under Non-proportional Loading, K. C. Chang and G. C. Lee, EM Aug. 86 p792-805.

Convexity of Smooth Yield Surface of Frictional Material, Feng-Bao Lin and Zdenek P. Bazant, EM Nov. 86 p1259-1262.

Some Restrictions on Lehigh-Purdue Concrete Plasticity Model, A. S. Elnashai and R. W. Nicholson, EM Feb. 86 p217-221.

**Mathematical models**

2-D Representation of 3-D Limit Surfaces, Jan G. M. van Mier and Rene de Borst, EM Nov. 86 p1255-1258.

**Measuring instruments**

Digital Signal Processing of Geotechnical Data, Satyananda Chakrabarti, Donald E. Shaw, Dale E. Stephenson and B. V. K. Vijaya Kumar, EM Jan. 86 p70-83.

**Membranes**

Stress Optimized Suspended Liquid Containers, N. Jnanasekaran and D. Stephen Sandegren, EM Sept. 84 p1350-1356.

**Modal superposition**

Elastoplastic Analysis Method for Dynamic Agencies, Castrenze Polizzotto, EM Mar. 86 p293-310.

**Model studies**

Active Control of Floating Structures, S. Sirlin, C. Paliou, R. W. Longman, M. Shinozuka and E. Samaras, EM Sept. 86 p947-965.

**Monitoring**

Digital Signal Processing of Geotechnical Data, Satyananda Chakrabarti, Donald E. Shaw, Dale E. Stephenson and B. V. K. Vijaya Kumar, EM Jan. 86 p70-83.

**Natural frequency**

Shallow Spherical Shells on Pasternak Foundation, D. N. Paliwal, S. N. Sinha and B. K. Choudhary, Jr., EM Feb. 86 p175-182.

**Nonlinear analysis**

Nonlinear Analysis of Thick Circular Plates, P. C. Dumir and L. Shingal, EM Mar. 86 p260-272.

A Rough Crack Model for Analysis of Concrete, H. Ronald Riggs and Graham H. Powell, EM May 86 p448-464.

Some Restrictions on Lehigh-Purdue Concrete Plasticity Model, A. S. Elnashai and R. W. Nicholson, EM Feb. 86 p217-221.

**Normal strain**

Effects of Shear and Normal Strain on Plate

Bending, G. Z. Voyiadjis, M. H. Baluch and W. K. Chi, EM Sept. 85 p1130-1143.

**Normally consolidated soils**

Modelling of Undrained Creep of Normally Consolidated Clay, M. O. Faruque, EM Oct. 86 p1007-1020.

**Notches**

Stress Analysis of a Blunted Notch in a Clamped Edge, Norio Hasebe, Takahiro Sugimoto and Takuji Nakamura, EM Feb. 86 p142-153.

Stress Concentration in Clamped Edge of Thin Plate, Norio Hasebe, Takahiro Sugimoto and Takuji Nakamura, EM July 86 p642-653.

**Offshore platforms**

Steady-State Ice-Structure Interaction Analysis, A. N. Williams and C. Vipulanandan, EM Oct. 86 p989-1006.

**Offshore structures**

Response of Offshore Structures to Random Waves, M. Grigoriu and B. Alibe, EM Aug. 86 p729-744.

**Optimal design**

A General Theory of Optimal Layouts for Elastic Structures, G. I. N. Rozvany and Ong Tion Guan, EM Aug. 86 p851-857.

Optimal Elastic Design with Constrained Taper: Prescribed Deflections, George I. N. Rozvany, Ong Tiong Guan, Yep Kong Min and Roman Sandler, EM Aug. 86 p845-851.

**Optimization**

Optimum Hole Shapes in Beams under Pure Bending, N. K. Naik, R. Ramesh Kumar and K. Rajaiah, EM Apr. 86 p407-411.

**Orthotropic**

Cylindrically Orthotropic Medium with Lined Hole, Yellappa C. Das and Glenn A. Hazen, EM Sept. 86 p904-915.

**Orthotropic plate**

Nonlinear Analysis of Thick Circular Plates, P. C. Dumir and L. Shingal, EM Mar. 86 p260-272.

**Oscillators**

Elasto-Plastic Oscillator with Gaussian Excitation, Ove Ditlevsen, EM Apr. 86 p386-406.

Free Vibration of Combined Dynamical Systems, James W. Nicholson and Lawrence A. Bergman, EM Jan. 86 p1-13.

Vibration of Damped Plate-Oscillator Systems, James W. Nicholson and Lawrence A. Bergman, EM Jan. 86 p14-30.

**Parameters**

Railroad Track Analyses and Determination of Parameters, Arnold D. Kerr and Harry W. Shenton, III, EM Nov. 86 p1117-1134.

**Piles**

Time Domain Axial Response of Dynamically, Toyoaki Nogami and Kazuo Konagai, EM Nov. 86 p1241-1252.

**Plane strain**

Loading of Anisotropic Quarter Plane, M. C. Constantinou and George Gazetas, EM Oct. 86 p1021-1040.

**Plastic analysis**

Plastic Analysis of Floating Beams, Shankar U. Bhat and Paul C. Xirouchakis, EM Feb. 86 p198-214.

Rigid-Plastic Analysis of Floating Plates, Shankaranarayana U. Bhat and Paul C. Xirouchakis, EM June 85 p815-831.

**Plastic design**

Optimal Plastic Design with Imprecise Data, John Munro and Poon-Hwei Chuang, EM Sept. 86 p888-903.

**Plastic hinges**

3D Beam-Column Element with Generalized Plastic Hinges, Graham H. Powell and Paul F.-S. Chen, EM July 86 p627-641.

**Plasticity**

Bounding Surface Plasticity: I: Mathematical Foundation and Hypoplasticity, Yannis F. Dafalias, EM Sept. 86 p966-987.

Bounding Surface Plasticity II: Application to Isotropic Cohesive Soils, Yannis F. Dafalias and Leonard R. Herrmann, EM Dec. 86 p1263-1291.

Bounding Surface Plasticity III: Application to Anisotropic Cohesive Soils, A. Anandarajah and Yannis F. Dafalias, EM Dec. 86 p1292-1318.

Bounding Surface Plasticity Model for Sands, J. P. Bardet, EM Nov. 86 p1198-1217.

Constitutive Model for Nonassociative Behavior, G. Frantziskonis, C. S. Desai and S. Somasundaram, EM Sept. 86 p932-946.

Constitutive Relations of Structural Steel Subjected to Nonproportionally Applied Stresses, K. C. Chang and G. C. Lee, EM Aug. 86 p806-820.

Some Restrictions on Lehigh-Purdue Concrete Plasticity Model, A. S. Elnashai and R. W. Nicholson, EM Feb. 86 p217-221.

**Plates**

Analytical Strip Solution to Rectangular Plates, Issam E. Harik and Ghassan L. Salamoun, EM Jan. 86 p105-118.

Bending of Circular Plate by Edge Moments, B. J. Stephens, O. L. Vance and Carol Rubin, EM July 86 p721-727.

Compound Strip Method for Continuous Sector Plates, Jay A. Puckett and Greg J. Lang, EM May 86 p498-514.

Effects of Shear and Normal Strain on Plate Bending, G. Z. Voyiadjis, M. H. Baluch and W. K. Chi, EM Sept. 85 p1130-1143.

On Plate Buckling Coefficients, Herbert H. Spencer and Herli Syrjanhata, EM Mar. 86 p249-259.

Reduced Integrated Nonconforming Plate Element, Chang-Koon Choi, EM Apr. 86 p370-385.

Spline Finite Strip Analysis of General Plates, W.

Y. Li, Y. K. Cheung and L. G. Tham, EM Jan. 86 p43-54.

Step-Load Response Analysis by Generalized Functions, Erwin Kessler and Hans Brauchli, EM Mar. 86 p311-321.

Stress Concentration in Clamped Edge of Thin Plate, Norio Hasebe, Takahiro Sugimoto and Takuji Nakamura, EM July 86 p642-653.

Thick Rectangular Plates on an Elastic Foundation, George Z. Voyiadjis and Peter I. Kattan, EM Nov. 86 p1218-1240.

Vibration of Damped Plate-Oscillator Systems, James W. Nicholson and Lawrence A. Bergman, EM Jan. 86 p14-30.

**Porous media flow**

Lagrangean Continuum Theory for Saturated Porous Media, P. K. Kiousis and George Z. Voyiadjis, EM Oct. 85 p1277-1288.

**Probabilistic methods**

Response of Aging Linear Systems to Ergodic Random Input, Zdenek P. Bazant, EM Mar. 86 p322-342.

**Probability**

Tsunami Hazard, I-Chen Lin and C. C. Tung, EM Sept. 86 p874-887.

**Probability density functions**

Response of Linear Systems to Quadratic Gaussian Excitations, Mircea Grigoriu, EM June 86 p523-535.

**Probability distribution**

Probability Distribution of Strength Parameters in Uniform Soils, Kingsley Harrop-Williams, EM Mar. 86 p345-350.

**Probability theory**

Response of Offshore Structures to Random Waves, M. Grigoriu and B. Alibe, EM Aug. 86 p729-744.

Stochastic Variation of Earthquake Ground Motion in Space and Time, Ronald S. Harichandran and Erik H. Vanmarcke, EM Feb. 86 p154-174.

Structural Reliability Under Incomplete Probability Information, Armen Der Kiureghian and Pei-Ling Liu, EM Jan. 86 p85-104.

**Railroad ties**

Railroad Track Analyses and Determination of Parameters, Arnold D. Kerr and Harry W. Shenton, III, EM Nov. 86 p1117-1134.

**Railroad tracks**

Railroad Track Analyses and Determination of Parameters, Arnold D. Kerr and Harry W. Shenton, III, EM Nov. 86 p1117-1134.

**Random variables**

Structural Reliability Under Incomplete Probability Information, Armen Der Kiureghian and Pei-Ling Liu, EM Jan. 86 p85-104.

**Random vibration**

Elasto-Plastic Oscillator with Gaussian Excitation, Ove Ditlevsen, EM Apr. 86 p386-406.

Extremes of Gaussian Processes with Bimodal Spectra, Gabriel R. Toro and C. Allin Cornell, EM May 86 p465-484.

Random Vibration of Rotating Machines under Earthquake Excitations, B. Samali, K. Kim and J. N. Yang, EM June 86 p550-565.

Response of Aging Linear Systems to Ergodic Random Input, Zdenek P. Bazant, EM Mar. 86 p322-342.

Stochastic Variation of Earthquake Ground Motion in Space and Time, Ronald S. Harichandran and Erik H. Vanmarcke, EM Feb. 86 p154-174.

**Random waves**

Response of Offshore Structures to Random Waves, M. Grigoriu and B. Alibe, EM Aug. 86 p729-744.

**Redundancy**

Formulations of Structural System Reliability, Richard M. Bennett and Alfredo H-S. Ang, EM Nov. 86 p1135-1151.

**Reservoirs**

Effect of Sediment on Earthquake-Induced Reservoir Hydrodynamic Response, Alexander H.-D. Cheng, EM July 86 p654-663.

**Response spectra**

Bounds on Earthquake Response of Structures, Goodarz Ahmadi, EM Apr. 86 p351-369.

**Retaining walls**

Loading of Anisotropic Quarter Plane, M. C. Constantinou and George Gazetas, EM Oct. 86 p1021-1040.

**Rigid-body dynamics**

Harmonic Rocking of Rigid Block on Flexible Foundation, Aik-Siong Koh, Pol D. Spanos and Jose M. Roesset, EM Nov. 86 p1165-1180.

**Rings**

Vertical Vibration of Ring Foundations with Mass, Anestis S. Veletsos and Yu Tang, EM Oct. 86 p1090-1098.

**Rotation**

Random Vibration of Rotating Machines under Earthquake Excitations, B. Samali, K. Kim and J. N. Yang, EM June 86 p550-565.

**Sand**

Bounding Surface Plasticity Model for Sands, J. P. Bardet, EM Nov. 86 p1198-1217.

A Constitutive Equation for Ottawa Sand, R. Block and F. E. Udwadia, EM Mar. 86 p238-248.

**Sediment**

Effect of Sediment on Earthquake-Induced Reservoir Hydrodynamic Response, Alexander H.-D. Cheng, EM July 86 p654-663.

**Seismic response**

Pseudo-Dynamic Testing of Structures, Haluk M. Aktan, EM Feb. 86 p183-197.

Seismic Response of Buildings with Flexible Floors, Sudhir K. Jain, EM Jan. 84 p125-129.

Three-Dimensional Motion of a Buried Pipeline II: Numerical Results, K. C. Wong, A. H. Shah and S. K. Datta, EM Dec. 86 p1338-1345.

Three-Dimensional Motion of Buried Pipeline I: Analysis, K. C. Wong, S. K. Datta and A. H. Shah, EM Dec. 86 p1319-1337.

**Seismology**

Tsunami Hazard, I-Chen Lin and C. C. Tung, EM Sept. 86 p874-887.

**Sensitivity analysis**

Tsunami Hazard, I-Chen Lin and C. C. Tung, EM Sept. 86 p874-887.

**Shape**

Optimum Hole Shapes in Beams under Pure Bending, N. K. Naik, R. Ramesh Kumar and K. Rajaiah, EM Apr. 86 p407-411.

Stress Optimized Suspended Liquid Containers, N. Jnanasekaran and D. Stephen Sandegren, EM Sept. 84 p1350-1356.

**Shear deformation**

Nonlinear Analysis of Thick Circular Plates, P. C. Dumir and L. Shingal, EM Mar. 86 p260-272.

**Shear forces**

Bending of Circular Plate by Edge Moments, B. J. Stephens, O. L. Vance and Carol Rubin, EM July 86 p721-727.

**Shear strain**

Effects of Shear and Normal Strain on Plate Bending, G. Z. Voyiadjis, M. H. Baluch and W. K. Chi, EM Sept. 85 p1130-1143.

**Shear stress**

Torsion of Nonhomogeneous and Transversely Isotropic Half-Space, M. E. Erguven, EM Oct. 86 p1101-1106.

**Shear walls**

Stiffening of Linked Shear Walls, Fouad R. Moudarres and Alex Coull, EM Mar. 86 p223-237.

**Shell structures**

Shallow Spherical Shells on Pasternak Foundation, D. N. Paliwal, S. N. Sinha and B. K. Choudhary, Jr., EM Feb. 86 p175-182.

**Shock waves**

Attenuation of Shocks by Viscoelastic Support, Marek Elzanowski and Marcelo Epstein, EM June 86 p587-592.

**Simulation**

Coordination of Interconnected Arterial Traffic Signals (*Computing in Civil Engineering*, W. Tracy Lenocker, ed., 1986), Edmond Chin-Ping Chang p534-540.

Pseudo-Dynamic Testing of Structures, Haluk M. Aktan, EM Feb. 86 p183-197.

**Slabs**

Singularity Finite Elements for Plate Bending, Terry M. Hrudey and Metro M. Hrabok, EM July 86 p666-681.

**Slopes**

Deformation of Asphalt Concrete Linings on Slopes, John F. Hills and David McAughtry, EM Oct. 86 p1076-1089.

Loading of Anisotropic Quarter Plane, M. C. Constantinou and George Gazetas, EM Oct. 86 p1021-1040.

**Soil, shear strength**

Probability Distribution of Strength Parameters in Uniform Soils, Kingsley Harrop-Williams, EM Mar. 86 p345-350.

**Soil strength**

Probability Distribution of Strength Parameters in Uniform Soils, Kingsley Harrop-Williams, EM Mar. 86 p345-350.

**Soil-structure interactin**

Antiplane Transient Response of Embedded Cylinder, Anil C. Wijeyewickrema and Leon M. Keer, EM June 86 p536-549.

**Soil-structure interaction**

Response of Hemispherical Foundation Embedded in Half-Space, J. Entique Luco and Hung L. Wong, EM Dec. 86 p1363-1374.

Time Domain Axial Response of Dynamically, Toyoaki Nogami and Kazuo Konagai, EM Nov. 86 p1241-1252.

Vibrations of Footings on Zoned Viscoelastic Soils, Ramón Abascal and Jose Dominguez, EM May 86 p433-447.

**Solitary wave**

A Model for Unidirectional Water Waves, Nikolaos D. Katopodes and Chien-Tai Wu, EM July 86 p697-717.

**Spherical shells**

Shallow Spherical Shells on Pasternak Foundation, D. N. Paliwal, S. N. Sinha and B. K. Choudhary, Jr., EM Feb. 86 p175-182.

**Stability**

Static Stability of Curved Thin-Walled Beams, Teong-Bin Yang and Shyh-Rong Kuo, EM Aug. 86 p821-841.

**Statistical analysis**

Aerodynamic Behavior of Cylindrical Shell, Kazue Uchiyama, Yasushi Uematsu and Shigeki Katsura, EM Dec. 86 p1346-1362.

**Stiffness**

Stiffening of Linked Shear Walls, Fouad R. Moudarres and Alex Coull, EM Mar. 86 p223-237.

**Stiffness methods**

Compound Strip Method for Continuous Sector Plates, Jay A. Puckett and Greg J. Lang, EM May 86 p498-514.

**Stochastic models**

Stochastic Stress Models With Horizontal Forces, J. M. Golden, EM May 86 p517-522.

Stochastic Variation of Earthquake Ground Motion in Space and Time, Ronald S. Harichandran and Erik H. Vanmarcke, EM Feb. 86 p154-174.

**Stochastic processes**

Cumulants of Stochastic Response for Linear Systems, Loren D. Lutes, EM Oct. 86 p1062-1075.

Extremes of Gaussian Processes with Bimodal Spectra, Gabriel R. Toro and C. Allin Cornell, EM May 86 p465-484.

Non-Normal Stochastic Response of Linear Systems, Loren D. Lutes and Sau-Lon James Hu, EM Feb. 86 p127-141.

**Strain energy**

A Constitutive Equation for Ottawa Sand, R. Block and F. E. Udwadia, EM Mar. 86 p238-248.

**Strain hardening**

Finite-Strain, Elasto-Plastic Solution for Contact Problems, George Z. Voyiadjis, Andrew A. Poe and Panos D. Kiousis, EM Mar. 86 p273-292.

**Strain softening**

Thermodynamic Consequences of Strain Softening in Tension, Niels S. Ottosen, EM Nov. 86 p1152-1164.

**Stress**

Cylindrically Orthotropic Medium with Lined Hole, Yellappa C. Das and Glenn A. Hazen, EM Sept. 86 p904-915.

Stress Optimized Suspended Liquid Containers, N. Jnanasekaran and D. Stephen Sandegren, EM Sept. 84 p1350-1356.

**Stress analysis**

Stress Analysis of a Blunted Notch in a Clamped Edge, Norio Hasebe, Takahiro Sugimoto and Takuji Nakamura, EM Feb. 86 p142-153.

Stress Analysis of Thick-Walled Reinforced Tunnel, Kuo-Yao Liu and Charles W. Bert, EM Sept. 86 p916-931.

**Stress concentration**

Optimum Hole Shapes in Beams under Pure Bending, N. K. Naik, R. Ramesh Kumar and K. Rajaiah, EM Apr. 86 p407-411.

Stress Analysis of a Blunted Notch in a Clamped Edge, Norio Hasebe, Takahiro Sugimoto and Takuji Nakamura, EM Feb. 86 p142-153.

Stress Concentration in Clamped Edge of Thin Plate, Norio Hasebe, Takahiro Sugimoto and Takuji Nakamura, EM July 86 p642-653.

**Stress distribution**

Stochastic Stress Models With Horizontal Forces, J. M. Golden, EM May 86 p517-522.

**Stress intensity factor**

Analysis of Kinked Crack Under Uniform Heat Flow, Norio Hasebe, Kenji Tamai and Takuji Nakamura, EM Jan. 86 p31-42.

**Stress strain relations**

Constitutive Model for Biaxial Cyclic Loading of Concrete, A. Fafitis and S. P. Shah, EM Aug. 86 p760-775.

New Cap Model for Failure and Yielding of Pressure-Sensitive Materials, M.O. Faruque and C. J. Chang, EM Oct. 86 p1041-1053.

**Structural analysis**

Reduced Integrated Nonconforming Plate Element, Chang-Koon Choi, EM Apr. 86 p370-385.

**Structural dynamics**

Extremes of Gaussian Processes with Bimodal Spectra, Gabriel R. Toro and C. Allin Cornell, EM May 86 p465-484.

Z-Transform Modeling of P-M Wave Spectrum, Pol D. Spanos and Marc P. Mignolet, EM Aug. 86 p745-759.

**Structural reliability**

Formulations of Structural System Reliability, Richard M. Bennett and Alfredo H-S. Ang, EM Nov. 86 p1135-1151.

Structural Reliability Under Incomplete Probability Information, Armen Der Kiureghian and Pei-Ling Liu, EM Jan. 86 p85-104.

**Structural response**

Bounds on Earthquake Response of Structures, Goodarz Ahmadi, EM Apr. 86 p351-369.

Non-Normal Stochastic Response of Linear Systems, Loren D. Lutes and Sau-Lon James Hu, EM Feb. 86 p127-141.

Random Vibration of Rotating Machines under Earthquake Excitations, B. Samali, K. Kim and J. N. Yang, EM June 86 p550-565.

Response Covariance to Multiple Excitations, Masaru Hoshiya and Shigehiko Shibusawa, EM Apr. 86 p412-421.

Response of Linear Systems to Quadratic Gaussian Excitations, Mircea Grigoriu, EM June 86 p523-535.

Response of Offshore Structures to Random Waves, M. Grigoriu and B. Alibe, EM Aug. 86 p729-744.

Response of SDF Systems to Extreme Overpressure, Arthur Feldman and Roy J. Heyman, EM Apr. 86 p425-429.

**Structural steels**

Biaxial Properties of Structural Steel under Nonproportional Loading, K. C. Chang and G. C. Lee, EM Aug. 86 p792-805.

Constitutive Relations of Structural Steel Subjected to Nonproportionally Applied Stresses, K. C. Chang and G. C. Lee, EM Aug. 86 p806-820.

**Structures**

Fuzzy Set Approach to Linguistic Seismic Load and Damage Assessments, Costas Souflis and Dimitri A. Grivas, EM June 86 p605-618.

**Suspended structures**

Stress Optimized Suspended Liquid Containers, N.

Jnanasekaran and D. Stephen Sandegren, EM Sept. 84 p1350-1356.

**Tall buildings**

Synthesis of Fluctuating along Wind Loads on Buildings, Ahsan Kareem, EM Jan. 86 p121-125.

**Tanks, containers**

Stress Optimized Suspended Liquid Containers, N. Jnanasekaran and D. Stephen Sandegren, EM Sept. 84 p1350-1356.

**Taper**

Optimal Elastic Design with Constrained Taper: Prescribed Deflections, George I. N. Rozvany, Ong Tiong Guan, Yep Kong Min and Roman Sandler, EM Aug. 86 p845-851.

**Temperature distribution**

Analysis of Kinked Crack Under Uniform Heat Flow, Norio Hasebe, Kenji Tamai and Takuji Nakamura, EM Jan. 86 p31-42.

**Temperature effects**

Deformation of Asphalt Concrete Linings on Slopes, John F. Hills and David McAughtry, EM Oct. 86 p1076-1089.

**Tension**

Thermodynamic Consequences of Strain Softening in Tension, Niels S. Ottosen, EM Nov. 86 p1152-1164.

**Thermodynamics**

Thermodynamic Consequences of Strain Softening in Tension, Niels S. Ottosen, EM Nov. 86 p1152-1164.

**Thermoelasticity**

Analysis of Kinked Crack Under Uniform Heat Flow, Norio Hasebe, Kenji Tamai and Takuji Nakamura, EM Jan. 86 p31-42.

**Thickness**

Deformation of Asphalt Concrete Linings on Slopes, John F. Hills and David McAughtry, EM Oct. 86 p1076-1089.

Stress Analysis of Thick-Walled Reinforced Tunnel, Kuo-Yao Liu and Charles W. Bert, EM Sept. 86 p916-931.

**Three-dimensional analysis**

Three-Dimensional Motion of a Buried Pipeline II: Numerical Results, K. C. Wong, A. H. Shah and S. K. Datta, EM Dec. 86 p1338-1345.

Three-Dimensional Motion of Buried Pipeline I: Analysis, K. C. Wong, S. K. Datta and A. H. Shah, EM Dec. 86 p1319-1337.

**Torsion**

Static Stability of Curved Thin-Walled Beams, Teong-Bin Yang and Shyh-Rong Kuo, EM Aug. 86 p821-841.

Torsion of Nonhomogeneous and Transversely Isotropic Half-Space, M. E. Erguven, EM Oct. 86 p1101-1106.

**Traffic signal controllers**

Coordination of Interconnected Arterial Traffic Signals (*Computing in Civil Engineering*, W. Tracy Lenocker, ed., 1986), Edmond Chin-Ping Chang p534-540.

**Traffic signals**

Coordination of Interconnected Arterial Traffic Signals (*Computing in Civil Engineering*, W. Tracy Lenocker, ed., 1986), Edmond Chin-Ping Chang p534-540.

**Transient loads**

Time Domain Axial Response of Dynamically, Toyoaki Nogami and Kazuo Konagai, EM Nov. 86 p1241-1252.

**Transient response**

Antiplane Transient Response of Embedded Cylinder, Anil C. Wijeyewickrema and Leon M. Keer, EM June 86 p536-549.

Nonlinear Analysis of Thick Circular Plates, P. C. Dumir and L. Shingal, EM Mar. 86 p260-272.

**Triaxial tests**

Modelling of Undrained Creep of Normally Consolidated Clay, M. O. Faruque, EM Oct. 86 p1007-1020.

**Tsunamis**

Tsunami Hazard, I-Chen Lin and C. C. Tung, EM Sept. 86 p874-887.

**Tunnels**

Stress Analysis of Thick-Walled Reinforced Tunnel, Kuo-Yao Liu and Charles W. Bert, EM Sept. 86 p916-931.

**Turbulent boundary layers**

Low Reynolds Number Turbulent Flow in Laboratory Flume, Habib O. Anwar, EM Jan. 86 p55-69.

**Turbulent flow**

Turbulence Effect on Flow Around Circular Cylinder, Kenny K. S. Kwok, EM Nov. 86 p1181-1197.

**Two phase flow**

Buoyancy Driven Exchange Flow in a Horizontal Pipe, David L. Wilkinson, EM May 86 p485-497.

**Two-dimensional flow**

Low Reynolds Number Turbulent Flow in Laboratory Flume, Habib O. Anwar, EM Jan. 86 p55-69.

**Velocity profile**

Low Reynolds Number Turbulent Flow in Laboratory Flume, Habib O. Anwar, EM Jan. 86 p55-69.

**Vertical oscillations**

Vertical Vibration of Ring Foundations with Mass, Anestis S. Veletsos and Yu Tang, EM Oct. 86 p1090-1098.

**Vibration**

Free Vibration of Combined Dynamical Systems, James W. Nicholson and Lawrence A. Bergman, EM Jan. 86 p1-13.

Steady-State Ice-Structure Interaction Analysis, A. N. Williams and C. Vipulanandan, EM Oct. 86 p989-1006.

Vertical Vibration of Ring Foundations with Mass, Anestis S. Veletsos and Yu Tang, EM Oct. 86 p1090-1098.

Vibration of Damped Plate-Oscillator Systems, James W. Nicholson and Lawrence A. Bergman, EM Jan. 86 p14-30.

Vibrations of Footings on Zoned Viscoelastic Soils, Ramón Abascal and Jose Dominguez, EM May 86 p433-447.

**Vibration analysis**

Compound Strip Method for Free Vibration Analysis of Continuous Plates, J.A. Puckett and G.J. Lang, EM Dec. 86 p1375-1389.

Free Vibration Analysis by BEM Using Particular Integrals, Shahid Ahmad and Prasanta K. Banerjee, EM July 86 p682-695.

**Viscoelasticity**

Vibrations of Footings on Zoned Viscoelastic Soils, Ramón Abascal and Jose Dominguez, EM May 86 p433-447.

**Viscosity**

Buoyancy Driven Exchange Flow in a Horizontal Pipe, David L. Wilkinson, EM May 86 p485-497.

**Void ratio**

A Constitutive Equation for Ottawa Sand, R. Block and F. E. Udwadia, EM Mar. 86 p238-248.

**Warpage**

Static Stability of Curved Thin-Walled Beams, Teong-Bin Yang and Shyh-Rong Kuo, EM Aug. 86 p821-841.

**Wave damping**

Effect of Sediment on Earthquake-Induced Reservoir Hydrodynamic Response, Alexander H.-D. Cheng, EM July 86 p654-663.

**Wave forces**

Response of Offshore Structures to Random Waves, M. Grigoriu and B. Alibe, EM Aug. 86 p729-744.

**Wave propagation**

Flexural Waves in Beam of Elastic Nonlocal Material, Jerzy L. Nowinski, EM June 86 p593-604.

A Model for Unidirectional Water Waves, Nikolaos D. Katopodes and Chien-Tai Wu, EM July 86 p697-717.

**Wave spectra**

Z-Transform Modeling of P-M Wave Spectrum, Pol D. Spanos and Marc P. Mignolet, EM Aug. 86 p745-759.

**Waves**

Active Control of Floating Structures, S. Sirlin, C. Paliou, R. W. Longman, M. Shinozuka and E. Samaras, EM Sept. 86 p947-965.

**White noise**

Z-Transform Modeling of P-M Wave Spectrum, Pol D. Spanos and Marc P. Mignolet, EM Aug. 86 p745-759.

**Wind loads**

Response of Linear Systems to Quadratic Gaussian Excitations, Mircea Grigoriu, EM June 86 p523-535.

Synthesis of Fluctuating along Wind Loads on Buildings, Ahsan Kareem, EM Jan. 86 p121-125.

**Wind tunnel test**

Aerodynamic Behavior of Cylindrical Shell, Kazue Uchiyama, Yasushi Uematsu and Shigeki Katsura, EM Dec. 86 p1346-1362.

Turbulence Effect on Flow Around Circular Cylinder, Kenny K. S. Kwok, EM Nov. 86 p1181-1197.

**Yield surface**

Convexity of Smooth Yield Surface of Frictional Material, Feng-Bao Lin and Zdenek P. Bazant, EM Nov. 86 p1259-1262.

New Cap Model for Failure and Yielding of Pressure-Sensitive Materials, M.O. Faruque and C. J. Chang, EM Oct. 86 p1041-1053.

# Author Index


**Abascal, Ramón**
Vibrations of Footings on Zoned Viscoelastic Soils, with Jose Dominguez, EM May 86, p433-447

**Ahmad, Shahid**
Free Vibration Analysis by BEM Using Particular Integrals, with Prasanta K. Banerjee, EM July 86, p682-695

**Ahmadi, Goodarz**
Bounds on Earthquake Response of Structures, EM Apr. 86, p351-369

**Aktan, Haluk M.**
Pseudo-Dynamic Testing of Structures, EM Feb. 86, p183-197

**Ailbe, B.**
*see* Grigoriu, M., EM Aug. 86, p729-744

**Anandarajah, A.**
Bounding Surface Plasticity III: Application to Anisotropic Cohesive Soils, with Yannis F. Dafalias, EM Dec. 86, p1292-1318

**Ang, Alfredo H-S.**
*see* Bennett, Richard M., EM Nov. 86, p1135-1151

**Anwar, Habib O.**
Low Reynolds Number Turbulent Flow in Laboratory Flume, EM Jan. 86, p55-69

**Atatekin, L. S.**
*see* Vinogradov, O. G., EM Sept. 86, p859-873

**Aviles, Javier**
Hydrodynamic Pressures on Dams with Nonvertical Upstream Face, with Francisco J. Sanches-Sesma, EM Oct. 86, p1054-1061

**Baluch, M. H.**
*see* Voyiadjis, G. Z., EM Sept. 85, p1130-1143

**Banerjee, Prasanta K.**
*see* Ahmad, Shahid, EM July 86, p682-695

**Bardet, J. P.**
Bounding Surface Plasticity Model for Sands, EM Nov. 86, p1198-1217

**Bazant, Zdenek P.**
Response of Aging Linear Systems to Ergodic Random Input, EM Mar. 86, p322-342
*see* Lin, Feng-Bao, EM Nov. 86, p1259-1262

**Bennett, Richard M.**
Formulations of Structural System Reliability, with Alfredo H-S. Ang, EM Nov. 86, p1135-1151

**Bergman, Lawrence A.**
*see* Nicholson, James W., EM Jan. 86, p1-13
*see* Nicholson, James W., EM Jan. 86, p14-30

**Bert, Charles W.**
Improved Technique for Estimating Buckling Loads, EM Dec. 84, p1655-1665
disc: Robert Schmidt, EM Oct. 86, p1110-1112
clo: EM Oct. 86, p1112-1113
*see* Liu, Kuo-Yao, EM Sept. 86, p916-931

**Bhat, Shankar U.**
Plastic Analysis of Floating Beams, with Paul C. Xirouchakis, EM Feb. 86, p198-214
err: EM Apr. 86, p431

**Bhat, Shankaranarayana U.**
Rigid-Plastic Analysis of Floating Plates, with Paul C. Xirouchakis, EM June 85, p815-831
err: EM Oct. 86, p1113-1114

**Block, R.**
A Constitutive Equation for Ottawa Sand, with F. E. Udwadia, EM Mar. 86, p238-248

**Branchli, Hans**
*see* Kessler, Erwin, EM Mar. 86, p311-321

**Calomino, Anthony M.**
*see* Perdikaris, Philip C., EM Aug. 86, p776-791

**Chakraborti, Satyananda**
Digital Signal Processing of Geotechnical Data, with Donald E. Shaw, Dale E. Stephenson and B. V. K. Vijaya Kumar, EM Jan. 86, p70-83

**Chang, C. J.**
*see* Faruque, M.O., EM Oct. 86, p1041-1053

**Chang, Edmond Chin-Ping**
Coordination of Interconnected Arterial Traffic Signals, (*Computing in Civil Engineering*, W. Tracy Lenocker, ed., 1986), p534-540
err: EM Dec. 86, p1391-1392

**Chang, K. C.**
Biaxial Properties of Structural Steel under Nonproportional Loading, with G. C. Lee, EM Aug. 86, p792-805
Constitutive Relations of Structural Steel Subjected to Nonproportionally Applied Stresses, with G. C. Lee, EM Aug. 86, p806-820

**Chen, Paul F.-S.**
*see* Powell, Graham H., EM July 86, p627-641

**Cheng, Alexander H.-D.**
Effect of Sediment on Earthquake-Induced Reservoir Hydrodynamic Response, EM July 86, p654-663

**Cheung, Y. K.**
*see* Li, W. Y., EM Jan. 86, p43-54

**Chi, W. K.**
*see* Voyiadjis, G. Z., EM Sept. 85, p1130-1143

**Choi, Chang-Koon**
Reduced Integrated Nonconforming Plate Element, EM Apr. 86, p370-385

**Choudhury, B. K., Jr.**
*see* Paliwal, D. N., EM Feb. 86, p175-182

**Chuang, Poon-Hwei**
*see* Munro, John, EM Sept. 86, p888-903

**Chudnovsky, Alexander**
*see* Perdikaris, Philip C., EM Aug. 86, p776-791

**Constantinou, M. C.**
Loading of Anisotropic Quarter Plane, with George Gazetas, EM Oct. 86, p1021-1040

**Cornell, C. Allin**
*see* Toro, Gabriel R., EM May 86, p465-484

**Coull, Alex**
*see* Moudarres, Fouad R., EM Mar. 86, p223-237

**Dafalias, Yannis F.**
Bounding Surface Plasticity II: Application to Isotropic Cohesive Soils, with Leonard R. Herrmann, EM Dec. 86, p1263-1291
Bounding Surface Plasticity: I: Mathematical Foundation and Hypoplasticity, EM Sept. 86, p966-987
*see* Anandarajah, A., EM Dec. 86, p1292-1318

**Das, Yellappa C.**
Cylindrically Orthotropic Medium with Lined Hole, with Glenn A. Hazen, EM Sept. 86, p904-915

**Datta, S. K.**
*see* Wong, K. C., EM Dec. 86, p1319-1337
*see* Wong, K. C., EM Dec. 86, p1338-1345

**de Borst, Rene**
*see* van Mier, Jan G. M., EM Nov. 86, p1255-1258

**Der Kiureghian, Armen**
Structural Reliability Under Incomplete Probability Information, with Pei-Ling Liu, EM Jan. 86, p85-104

**Desai, C. S.**
*see* Frantziskonis, G., EM Sept. 86, p932-946

**Ditlevsen, Ove**
Elasto-Plastic Oscillator with Gaussian Excitation, EM Apr. 86, p386-406

**Dominguez, Jose**
*see* Abascal, Ramón, EM May 86, p433-447

**Dumir, P. C.**
Nonlinear Analysis of Thick Circular Plates, with L. Shingal, EM Mar. 86, p260-272

**Elnashai, A. S.**
Some Restrictions on Lehigh-Purdue Concrete Plasticity Model, with R. W. Nicholson, EM Feb. 86, p217-221

**Elzanowski, Marek**
Attenuation of Shocks by Viscoelastic Support, with Marcelo Epstein, EM June 86, p587-592

**Epstein, Marcelo**
*see* Elzanowski, Marek, EM June 86, p587-592

**Erguven, M. E.**
Torsion of Nonhomogeneous and Transversely Isotropic Half-Space, EM Oct. 86, p1101-1106

**Faflitis, A.**
Constitutive Model for Biaxial Cyclic Loading of Concrete, with S. P. Shah, EM Aug. 86, p760-775

**Faruque, M. O.**
Modelling of Undrained Creep of Normally Consolidated Clay, EM Oct. 86, p1007-1020
New Cap Model for Failure and Yielding of Pressure-Sensitive Materials, with C. J. Chang, EM Oct. 86, p1041-1053

**Feldman, Arthur**
Response of SDF Systems to Extreme Overpressure, with Roy J. Heyman, EM Apr. 86, p425-429

**Frantziskonis, G.**
Constitutive Model for Nonassociative Behavior, with C. S. Desai and S. Somasundaram, EM Sept. 86, p932-946

**Gazetas, George**
*see* Constantinou, M. C., EM Oct. 86, p1021-1040

**Golden, J. M.**
Stochastic Stress Models With Horizontal Forces, EM May 86, p517-522

**Grigoriu, M.**
Response of Offshore Structures to Random Waves, with B. Alibe, EM Aug. 86, p729-744

**Grigoriu, Mircea**
Response of Linear Systems to Quadratic Gaussian Excitations, EM June 86, p523-535

**Grivas, Dimitri A.**
*see* Souflis, Costas, EM June 86, p605-618

**Guan, Ong Tion**
*see* Rozvany, G. I. N., EM Aug. 86, p851-857

**Guan, Ong Tiong**
*see* Rozvany, George I. N., EM Aug. 86, p845-851

**Harichandran, Ronald S.**
Stochastic Variation of Earthquake Ground Motion in Space and Time, with Erik H. Vanmarcke, EM Feb. 86, p154-174

**Harik, Issam E.**
Analytical Strip Solution to Rectangular Plates, with Ghassan L. Salamoun, EM Jan. 86, p105-118

**Harrop-Williams, Kingsley**
Probability Distribution of Strength Parameters in Uniform Soils, EM Mar. 86, p345-350

**Hasebe, Norio**
Analysis of Kinked Crack Under Uniform Heat Flow, with Kenji Tamai and Takuji Nakamura, EM Jan. 86, p31-42
Stress Analysis of a Blunted Notch in a Clamped Edge, with Takahiro Sugimoto and Takuji Nakamura, EM Feb. 86, p142-153
Stress Concentration in Clamped Edge of Thin Plate, with Takahiro Sugimoto and Takuji Nakamura, EM July 86, p642-653

**Hazen, Glenn A.**
*see* Das, Yellappa C., EM Sept. 86, p904-915

**Hemried, Alan G.**
The Two-Degree-of-Freedom Equipment-Structure System, with Jerome L. Sackman, EM June 86, p621-626

**Herrmann, Leonard R.**
Composite FEM Analysis for Layered Systems, with Kenneth R. Welch and Chang K. Lim, EM Sept. 84, p1284-1302
disc: Geoff Stranghan, EM Oct. 86, p1109
clo: EM Oct. 86, p1110
*see* Dafalias, Yannis F., EM Dec. 86, p1263-1291

**Heyman, Roy J.**
*see* Feldman, Arthur, EM Apr. 86, p425-429

**Hills, John F.**
Deformation of Asphalt Concrete Linings on

Slopes, with David McAughtry, EM Oct. 86, p1076-1089

**Hoshiya, Masaru**
Response Covariance to Multiple Excitations, with Shigehiko Shibusawa, EM Apr. 86, p412-421

**Hrabok, Metro M.**
*see* Hrudey, Terry M., EM July 86, p666-681

**Hrudey, Terry M.**
Singularity Finite Elements for Plate Bending, with Metro M. Hrabok, EM July 86, p666-681

**Hu, Sau-Lon James**
*see* Lutes, Loren D., EM Feb. 86, p127-141

**Jain, Sudhir K.**
Seismic Response of Buildings with Flexible Floors, EM Jan. 84, p125-129
err: EM Oct. 86, p1109

**Jnanasekaran, N.**
Stress Optimized Suspended Liquid Containers, with D. Stephen Sandjegren, EM Sept. 84, p1350-1356
err: EM Oct. 86, p1110

**Kareem, Ahsan**
Synthesis of Fluctuating along Wind Loads on Buildings, EM Jan. 86, p121-125

**Katopodes, Nikolaos D.**
A Model for Unidirectional Water Waves, with Chien-Tai Wu, EM July 86, p697-717

**Katsura, Shigeki**
*see* Uchiyama, Kazue, EM Dec. 86, p1346-1362

**Kattan, Peter I.**
*see* Voyiadjis, George Z., EM Nov. 86, p1218-1240

**Keer, Leon M.**
*see* Wijeyewickrema, Anil C., EM June 86, p536-549

**Kerr, Arnold D.**
Railroad Track Analyses and Determination of Parameters, with Harry W. Shenton, III, EM Nov. 86, p1117-1134

**Kessler, Erwin**
Step-Load Response Analysis by Generalized Functions, with Hans Brauchli, EM Mar. 86, p311-321

**Kim, K.**
*see* Samali, B., EM June 86, p550-565

**Klousis, P. K.**
Lagrangean Continuum Theory for Saturated Porous Media, with George Z. Voyiadjis, EM Oct. 85, p1277-1288
clo: EM Oct. 86, p1114

**Klousis, Panos D.**
*see* Voyiadjis, George Z., EM Mar. 86, p273-292

**Koh, Aik-Siong**
Harmonic Rocking of Rigid Block on Flexible Foundation, with Pol D. Spanos and Jose M. Roesset, EM Nov. 86, p1165-1180

**Konagai, Kazuo**
*see* Nogami, Toyoaki, EM Nov. 86, p1241-1252

**Kumar, B. V. K. Vijaya**
*see* Chakrabarti, Satyananda, EM Jan. 86, p70-83

**Kumar, R. Ramesh**
*see* Naik, N. K., EM Apr. 86, p407-411

**Kuo, Shyh-Rong**
*see* Yang, Teong-Bin, EM Aug. 86, p821-841

**Kwok, Kenny K. S.**
Turbulence Effect on Flow Around Circular Cylinder, EM Nov. 86, p1181-1197

**Lang, G.J.**
*see* Puckett, J.A., EM Dec. 86, p1375-1389

**Lang, Greg J.**
*see* Puckett, Jay A., EM May 86, p498-514

**Lee, G. C.**
*see* Chang, K. C., EM Aug. 86, p792-805
*see* Chang, K. C., EM Aug. 86, p806-820

**Li, Victor C.**
Fracture Processes in Concrete and Fiber Reinforced Cementitious Composites, with Erwin Liang, EM June 86, p566-586

**Li, W. Y.**
Spline Finite Strip Analysis of General Plates, with Y. K. Cheung and L. G. Tham, EM Jan. 86, p43-54

**Liang, Erwin**
*see* Li, Victor C., EM June 86, p566-586

**Lim, Chang K.**
*see* Herrmann, Leonard R., EM Sept. 84, p1284-1302

**Lin, Feng-Bao**
Convexity of Smooth Yield Surface of Frictional Material, with Zdenek P. Bazant, EM Nov. 86, p1259-1262

**Lin, I-Chen**
Tsunami Hazard, with C. C. Tung, EM Sept. 86, p874-887

**Liu, Kuo-Yao**
Stress Analysis of Thick-Walled Reinforced Tunnel, with Charles W. Bert, EM Sept. 86, p916-931

**Liu, Pei-Ling**
*see* Der Kiureghian, Armen, EM Jan. 86, p85-104

**Longman, R. W.**
*see* Sirlin, S., EM Sept. 86, p947-965

**Luco, J. Enrique**
Response of Hemispherical Foundation Embedded in Half-Space, with Hung L. Wong, EM Dec. 86, p1363-1374

**Lutes, Loren D.**
Cumulants of Stochastic Response for Linear Systems, EM Oct. 86, p1062-1075
Non-Normal Stochastic Response of Linear Systems, with Sau-Lon James Hu, EM Feb. 86, p127-141

**McAughtry, David**
*see* Hills, John F., EM Oct. 86, p1076-1089

**Mignolet, Marc P.**
*see* Spanos, Pol D., EM Aug. 86, p745-759

**Min, Yep Kong**
*see* Rozvany, George I. N., EM Aug. 86, p845-851

**Moudarres, Fouad R.**
Stiffening of Linked Shear Walls, with Alex Coull, EM Mar. 86, p223-237

**Munro, John**
Optimal Plastic Design with Imprecise Data, with Poon-Hwei Chuang, EM Sept. 86, p888-903

**Naik, N. K.**
Optimum Hole Shapes in Beams under Pure Bending, with R. Ramesh Kumar and K. Rajaiah, EM Apr. 86, p407-411

**Nakamura, Takuji**
*see* Hasebe, Norio, EM Jan. 86, p31-42
*see* Hasebe, Norio, EM Feb. 86, p142-153
*see* Hasebe, Norio, EM July 86, p642-653

**Nicholson, James W.**
Free Vibration of Combined Dynamical Systems, with Lawrence A. Bergman, EM Jan. 86, p1-13
Vibration of Damped Plate-Oscillator Systems, with Lawrence A. Bergman, EM Jan. 86, p14-30

**Nicholson, R. W.**
*see* Elnashai, A. S., EM Feb. 86, p217-221

**Nogami, Toyoaki**
Time Domain Axial Response of Dynamically, with Kazuo Konagai, EM Nov. 86, p1241-1252

**Nowinski, Jerzy L.**
Flexural Waves in Beam of Elastic Nonlocal Material, EM June 86, p593-604

**Ottosen, Niels S.**
Thermodynamic Consequences of Strain Softening in Tension, EM Nov. 86, p1152-1164

**Palios, C.**
*see* Sirlin, S., EM Sept. 86, p947-965

**Paliwal, D. N.**
Shallow Spherical Shells on Pasternak Foundation, with S. N. Sinha and B. K. Choudhary, Jr., EM Feb. 86, p175-182

**Perdikaris, Philip C.**
Effect of Fatigue on the Fracture Toughness of Concrete, with Anthony M. Calomino and Alexander Chudnovsky, EM Aug. 86, p776-791

**Poe, Andrew A.**
*see* Voyiadjis, George Z., EM Mar. 86, p273-292

**Polizzotto, Castrenze**
Elastoplastic Analysis Method for Dynamic Agencies, EM Mar. 86, p293-310

**Powell, Graham H.**
3D Beam-Column Element with Generalized Plastic Hinges, with Paul F.-S. Chen, EM July 86, p627-641
*see* Riggs, H. Ronald, EM May 86, p448-464

**Puckett, J.A.**
Compound Strip Method for Free Vibration Analysis of Continuous Plates, with G.J. Lang, EM Dec. 86, p1375-1389

**Puckett, Jay A.**
Compound Strip Method for Continuous Sector Plates, with Greg J. Lang, EM May 86, p498-514

**Rajaiah, K.**
*see* Naik, N. K., EM Apr. 86, p407-411

**Riggs, H. Ronald**
A Rough Crack Model for Analysis of Concrete, with Graham H. Powell, EM May 86, p448-464

**Roesset, Jose M.**
*see* Koh, Aik-Siong, EM Nov. 86, p1165-1180

**Rozvany, G. I. N.**
A General Theory of Optimal Layouts for Elastic Structures, with Ong Tion Guan, EM Aug. 86, p851-857

**Rozvany, George I. N.**
Optimal Elastic Design with Constrained Taper: Prescribed Deflections, with Ong Tiong Guan, Yep Kong Min and Roman Sandler, EM Aug. 86, p845-851

**Rubin, Carol**
*see* Stephens, B. J., EM July 86, p721-727

**Sackman, Jerome L.**
*see* Hernried, Alan G., EM June 86, p621-626

**Salamoun, Ghassan I.**
*see* Harik, Issam E., EM Jan. 86, p105-118

**Samali, B.**
Random Vibration of Rotating Machines under Earthquake Excitations, with K. Kim and J. N. Yang, EM June 86, p550-565

**Samaras, E.**
*see* Sirlin, S., EM Sept. 86, p947-965

**Sanches-Sesma, Francisco J.**
*see* Aviles, Javier, EM Oct. 86, p1054-1061

**Sandegren, D. Stephen**
*see* Jnanasekaran, N., EM Sept. 84, p1350-1356

**Sandler, Roman**
*see* Rozvany, George I. N., EM Aug. 86, p845-851

**Schmidt, Robert**
disc. (of Improved Technique for Estimating Buckling Loads, by Charles W. Bert, EM Dec. 84, p1655-1665), EM Oct. 86, p1110-1112

**Shah, A. H.**
*see* Wong, K. C., EM Dec. 86, p1319-1337
*see* Wong, K. C., EM Dec. 86, p1338-1345

**Shah, S. P.**
*see* Fafitis, A., EM Aug. 86, p760-775

**Shaw, Donald E.**
*see* Chakrabarti, Satyananda, EM Jan. 86, p70-83

**Shenton, Harry W., III**
*see* Kerr, Arnold D., EM Nov. 86, p1117-1134

**Shibusawa, Shigehiko**
*see* Hoshiya, Masaru, EM Apr. 86, p412-421

**Shingal, L.**
*see* Dumir, P. C., EM Mar. 86, p260-272

**Shinozuka, M.**
*see* Sirlin, S., EM Sept. 86, p947-965

**Sinha, S. N.**
*see* Paliwal, D. N., EM Feb. 86, p175-182

**Sirlin, S.**
Active Control of Floating Structures, with C. Paliou, R. W. Longman, M. Shinozuka and E. Samaras, EM Sept. 86, p947-965

**Somasundaram, S.**
*see* Frantziskonis, G., EM Sept. 86, p932-946

**Souflis, Costas**
Fuzzy Set Approach to Linguistic Seismic Load and Damage Assessments, with Dimitri A. Grivas, EM June 86, p605-618

**Spanos, Pol D.**
Z-Transform Modeling of P-M Wave Spectrum, with Marc P. Mignolet, EM Aug. 86, p745-759
*see* Koh, Aik-Siong, EM Nov. 86, p1165-1180

**Spencer, Herbert H.**
On Plate Buckling Coefficients, with Herli Syrjanhata, EM Mar. 86, p249-259

**Stephens, B. J.**
Bending of Circular Plate by Edge Moments, with O. L. Vance and Carol Rubin, EM July 86, p721-727

**Stephenson, Dale E.**
*see* Chakrabarti, Satyananda, EM Jan. 86, p70-83

**Straughan, Geoff**
disc. (of Composite FEM Analysis for Layered Systems, by Leonard R. Herrmann, Kenneth R. Welch and Chang K. Lim, EM Sept. 84, p1284-1302), EM Oct. 86, p1109

**Sugimoto, Takahiro**
*see* Hasebe, Norio, EM Feb. 86, p142-153
*see* Hasebe, Norio, EM July 86, p642-653

**Syrjanhata, Herli**
*see* Spencer, Herbert H., EM Mar. 86, p249-259

**Tamai, Kenji**
*see* Hasebe, Norio, EM Jan. 86, p31-42

**Tang, Yu**
*see* Veletsos, Anestis S., EM Oct. 86, p1090-1098

**Tham, L. G.**
*see* Li, W. Y., EM Jan. 86, p43-54

**Toro, Gabriel R.**
Extremes of Gaussian Processes with Bimodal Spectra, with C. Allin Cornell, EM May 86, p465-484

**Tung, C. C.**
*see* Lin, I-Chen, EM Sept. 86, p874-887

**Uchiyama, Kazue**
Aerodynamic Behavior of Cylindrical Shell, with Yasushi Uematsu and Shigeki Katsura, EM Dec. 86, p1346-1362

**Udwadia, F. E.**
*see* Block, R., EM Mar. 86, p238-248

**Uematsu, Yasushi**
*see* Uchiyama, Kazue, EM Dec. 86, p1346-1362

**van Mier, Jan G. M.**
2-D Representation of 3-D Limit Surfaces, with Rene de Borst, EM Nov. 86, p1255-1258

**Vance, O. L.**
*see* Stephens, B. J., EM July 86, p721-727

**Vanmarcke, Erik H.**
*see* Harichandran, Ronald S., EM Feb. 86, p154-174

**Veletsos, Anestis S.**
Vertical Vibration of Ring Foundations with Mass, with Yu Tang, EM Oct. 86, p1090-1098

**Vinogradov, O. G.**
On Internal Friction Due to Wire Twist in a Bent Cable, with L. S. Atatekin, EM Sept. 86, p859-873

**Vipulanandan, C.**
*see* Williams, A. N., EM Oct. 86, p989-1006

**Voyiadjis, G. Z.**
Effects of Shear and Normal Strain on Plate Bending, with M. H. Baluch and W. K. Chi, EM Sept. 85, p1130-1143
err: EM Dec. 86, p1391

**Voyiadjis, George Z.**
Finite-Strain, Elasto-Plastic Solution for Contact Problems, with Andrew A. Poe and Panos D. Kiousis, EM Mar. 86, p273-292
Thick Rectangular Plates on an Elastic Foundation, with Peter I. Kattan, EM Nov. 86, p1218-1240
*see* Kiousis, P. K., EM Oct. 85, p1277-1288

**Welch, Kenneth R.**
*see* Herrmann, Leonard R., EM Sept. 84, p1284-1302

**Wijeyewickrema, Anil C.**
Antiplane Transient Response of Embedded Cylinder, with Leon M. Keer, EM June 86, p536-549

**Wilkinson, David L.**
Buoyancy Driven Exchange Flow in a Horizontal Pipe, EM May 86, p485-497

**Williams, A. N.**
Steady-State Ice-Structure Interaction Analysis, with C. Vipulanandan, EM Oct. 86, p989-1006

**Wong, Hung L.**
*see* Luco, J. Entique, EM Dec. 86, p1363-1374

**Wong, K. C.**
Three-Dimensional Motion of Buried Pipeline I: Analysis, with S. K. Datta and A. H. Shah, EM Dec. 86, p1319-1337
Three-Dimensional Motion of a Buried Pipeline II: Numerical Results, with A. H. Shah and S. K. Datta, EM Dec. 86, p1338-1345

**Wu, Chien-Tai**
*see* Katopodes, Nikolaos D., EM July 86, p697-717

**Xirouchakis, Paul C.**
*see* Bhat, Shankar U., EM Feb. 86, p198-214
*see* Bhat, Shankaranarayana U., EM June 85, p815-831

**Yang, J. N.**
*see* Samali, B., EM June 86, p550-565

**Yang, Teong-Bin**
Static Stability of Curved Thin-Walled Beams, with Shyh-Rong Kuo, EM Aug. 86, p821-841